

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
31 July 2003 (31.07.2003)

PCT

(10) International Publication Number  
WO 03/062521 A1

- (51) International Patent Classification<sup>7</sup>: D06M 15/277, 15/295, 15/248
- (21) International Application Number: PCT/US02/38020
- (22) International Filing Date:  
27 November 2002 (27.11.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
02075229.1 21 January 2002 (21.01.2002) EP
- (71) Applicant (for all designated States except US): 3M INNOVATIVE PROPERTIES COMPANY [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): AUDENAERT, Frans, A. [BE/BE]; Voorstraat 124, B-9970 Kaprijke (BE). ALLEWAERT, Kathy, E. [BE/BE]; Damweg 19A, B-3150 Haacht (BE).
- (74) Agents: JORDAN, Robert, H. et al.; Office of Intellectual Property Counsel, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF TREATMENT OF A TEXTILE OR NON-WOVEN SUBSTRATE TO RENDER SAME WATER AND OIL REPELLENT

(57) Abstract: The present invention relates to a method of treating a non-woven substrate or textile, comprising the step of applying to said non-woven substrate or textile a fluorochemical composition comprising a fluoropolymer that comprises: (a) between 10 and 97 mole % of units that can be derived from fluorinated monomer selected from the group consisting of monomers according to the general formula:  $R_f-X-OC(O)-C(R)=CH_2$  wherein  $R_f$  represents a perfluorinated aliphatic group having 3 or 4 carbon atoms, X is an organic divalent linking group and R represent hydrogen or a lower alkyl group having 1 to 4 carbon atoms; (b) between 3 and 75 mole % of units derived from a chlorine containing comonomer selected from the group consisting of vinylidene chloride, vinyl chloride and mixtures thereof; and (c) optionally further units derived from monomers other than a fluorinated monomer and said chlorine containing comonomers; wherein the amount of units (a), (b) and (c) adding up to 100%, whereby said fluorochemical composition is applied in such amount that the weight of fluoropolymer on said non-woven substrate or textile is not more than 3% by weight based on the weight of said non-woven substrate or textile.

WO 03/062521 A1